Exhibit C

Exhibit A

Clear Channel Broadcasting's Media Monitors and RCS monitoring and verification software, systems, and technology

Each element of each asserted claim is present in the accused instrumentalities listed above either literally, or alternatively, under the doctrine of equivalents.

Blue Spike – Monitoring and Analyzing Signals – U.S. Patent 8,214,175

Infringement Claim Chart

Claim	**Clear Channel Broadcasting's Media Monitors and RCS monitoring and verification software, systems, and technology.**
8. A system, comprising: non transitory memory comprising a database for storing a plurality of digital reference signal abstracts;.	Media Monitors' media monitoring service (the "Media Monitors Service") is a system that uses a database, having computer memory ("non-transitory memory"), to store fingerprints of commercial spot content ("plurality of digital reference signal abstracts"). Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.**

	See Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
at least one processor;. wherein said at least one processor is programmed or structured to generate a digital reference signal abstract from a digital reference signal such that said digital reference signal abstract is similar to said digital reference signal and reduced in size compared to said digital reference signal; and.	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "at least one processor") that generates a fingerprint ("digital reference signal abstract") from the content. The fingerprint is "detected," indicating both a similarity with the digital reference signal and a smaller size. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase

	produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
wherein said at least one processor is programmed to store said digital reference signal abstract in said database as one of said plurality of digital reference signal abstracts;	The processor is programmed to store the reference fingerprint ("digital reference signal abstract") in the database. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
wherein said digital reference signal is a digital representation of one of a plurality of different	The Media Monitors Service uses a fingerprinting algorithm or software that generates a fingerprint ("digital reference signal abstract") of audio advertisements (a "multimedia work") based on signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and cable advertisements ("differentiate between said

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versions of a visual work and a multimedia work, and wherein said at least one processor is programmed or structured to generate said digital reference signal abstract from said digital reference signal so that said digital reference signal comprises signal characteristic parameters that differentiate between said plurality of different versions of said visual work and said multimedia work.	plurality of different versions of said multimedia work"). Also, the Media Monitors Service is designed to differentiate between over 40 radio formats ("versions"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis

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	added). **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage. http://www.mediamonitors.com/services/radio (emphasis added).
11. A system, comprising: non transitory memory comprising a database for storing a plurality of digital reference signal abstracts;	Media Monitors' media monitoring service (the "Media Monitors Service") is a system that uses a database, having computer memory ("non-transitory memory"), to store fingerprints of commercial content ("plurality of digital reference signal abstracts"). Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program**

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	output. These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
at least one processor; wherein said at least one processor is programmed or structured to generate a digital reference signal abstract from a digital reference signal such that said digital reference signal abstract is similar to said digital reference signal and reduced in size compared to said digital reference signal; and	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "at least one processor") that generates a fingerprint ("digital reference signal abstract") from the content. The fingerprint is "detected," indicating both a similarity with the digital reference signal and a smaller size. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?**

	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
wherein said at least one processor is programmed to store said digital reference signal abstract in said database as one of said plurality of digital reference signal abstracts;	The processor is programmed to store the reference fingerprint ("digital reference signal abstract") in the database. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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	The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
wherein said at least one processor is programmed or structured to compare a digital query signal abstract to said plurality of digital reference signal abstracts stored in said database to generate a compare result.	The processor is programmed or structured to match ("compare") a fingerprint or "creative observation" ("digital query signal abstract") to an existing database library of abstracts ("said plurality of digital reference signal abstracts stored in said database"). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint**

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	of every spot and creates a record of when and where it was aired for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
12. The system of claim 11, wherein said compare result indicates no match between said digital query signal abstract to said plurality of digital reference signal abstracts stored in said database.	The Media Monitors Service identifies new advertising spots ("indicates no match between said digital query signal abstract to said plurality of digital reference signal abstracts") not already stored in the reference database. Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface.

	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
13. The system of claim 11, wherein said compare result indicates a match between said digital query signal abstract and a first digital reference signal abstracts of said plurality of digital reference signal abstracts stored in said database.	The Media Monitors Service infringes Claim 11. The Media Monitors Service detects fingerprints of millions of advertisements ("wherein said compare result indicates a match") and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that fingerprint of fingerprints, such as an index, is employed. Further discovery, including review of the Media Monitors Service source code, is required to chart the infringing instrumentality. Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
15. The system of claim 11,	The Media Monitors Service infringes Claim 11. The Media Monitors Service detects fingerprints of millions of

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wherein said memory further defines a first digital reference signal abstract match recorder recording a number of times said at least one processor determines a match between a digital query signal abstract and first digital reference signal abstract of said plurality of digital reference signal abstracts stored in said database.	advertisements ("wherein said compare result indicates a match") and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that fingerprint of fingerprints, such as an index, is employed. Matches against the database are recorded, as are match failures ("match recorder recording a number of times said at least one processor determines a match"). A match failure report is forwarded to a Media Monitors team for processing. Further discovery, including review of the Media Monitors Service source code, is required to chart the infringing instrumentality. Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). The processor is programmed or structured to match ("compare") a fingerprint or "creative observation" ("digital query

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	signal abstract") to an existing database library of abstracts ("said plurality of digital reference signal abstracts stored in said database"). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
16. The system of claim 12, wherein said at least one processor is programmed or structured to use an algorithm to generate said digital reference signal abstract from said digital reference signal; and wherein said at least one processor is	As established above, the Media Monitors Service infringes Claim 12. The at least one processor is programmed or structured to use an algorithm to generate and store reference fingerprints ("generate said digital reference signal abstract from said digital reference signal") and detect a fingerprint ("generate said digital query signal abstract from said digital query signal"). Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How are new advertisements identified?**

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programmed or structured to use said algorithm to generate said digital query signal abstract from said digital query signal.	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
17. A system, comprising: non transitory memory comprising a database for storing a plurality of digital reference signal abstracts;	Media Monitors' media monitoring service (the "Media Monitors Service") is a system that uses a database, having computer memory ("non-transitory memory"), to store fingerprints of commercial spot content ("plurality of digital reference signal abstracts"). Therefore, the Media Monitors Service infringes U.S. Patent 8,214,175 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date.

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	Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
at least one processor; wherein said at least one processor is programmed or structured to generate a digital reference signal abstract from a digital reference signal such that said digital reference signal abstract is similar to said digital reference signal and reduced in size compared to said digital reference signal; and	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "at least one processor") that generates a fingerprint ("digital reference signal abstract") from the content. The fingerprint is "detected," indicating both a similarity with the digital reference signal and a smaller size. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for**

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	accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
wherein said at least one processor is programmed to store said digital reference signal abstract in said database as one of said plurality of digital reference signal abstracts;	The processor is programmed to store the reference fingerprint ("digital reference signal abstract") in the database. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors

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	the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
wherein said wherein said at least one processor is programmed or structured to apply at least one of psycho-acoustic model and a psycho-visual model to generate said digital reference signal abstract from said digital reference signal.	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "at least one processor") that generates a fingerprint ("digital reference signal abstract") from the content. The fingerprint is able to identify an advertisement regardless of its file format, indicating the use of a psycho-acoustic model. Further discovery, including review of the Media Monitors Service source code, is required to chart the infringing instrumentality. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

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	RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage. http://www.mediamonitors.com/services/radio (emphasis added).

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Blue Spike – Monitoring and Analyzing Signals – U.S. Patent 7,346,472

Infringement Claim Chart

Claim	**Clear Channel Broadcasting's Media Monitors and RCS monitoring and verification software, systems, and technology.**
3. A method for monitoring and analyzing at least one signal comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a method for monitoring and identifying ("monitoring and analyzing") commercial spots and musical content ("at least one signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,346,472 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology,

	developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
receiving at least one reference signal to be monitored;	The Media Monitors Service receives commercial spots ("at least one reference signal") to be monitored. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date. Step 3: Automated processes are run on a nightly basis to **match each creative observation to our existing database library** and identify new advertisements. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). How are new advertisements identified?

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	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to **identify spots, and program output**. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the **existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. …. How does Media Monitors know what was played or what ran? Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. **Our computers automatically track millions** of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
creating an abstract of said at least one reference signal;	The Media Monitors Service generates a fingerprint ("creat[es] an abstract") from the content it is monitoring ("reference signal[s]"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a day** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

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	The **online advertising data collection & processing** follows four steps, listed below: Step 1: The s**oftware continually crawls each web property each day.** Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
storing the abstract of said at least one reference signal in a reference database;	The Media Monitors Service uses a database ("a reference database") for storing fingerprints ("abstract[s]") of the commercial content ("reference signal[s]"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
receiving at least one query signal to be analyzed;	The Media Monitors Service receives unknown commercial spots ("query signal[s]") to be identified ("analyzed"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. … How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computer automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.**

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually **crawls each web property each day**. Step 2: A proprietary program **finds display advertising from each website**, downloads the creative files, and captures specific data such as the URL, time, and date. Step 3: Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements. Step 4: The previous day's **newly observed data** for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).

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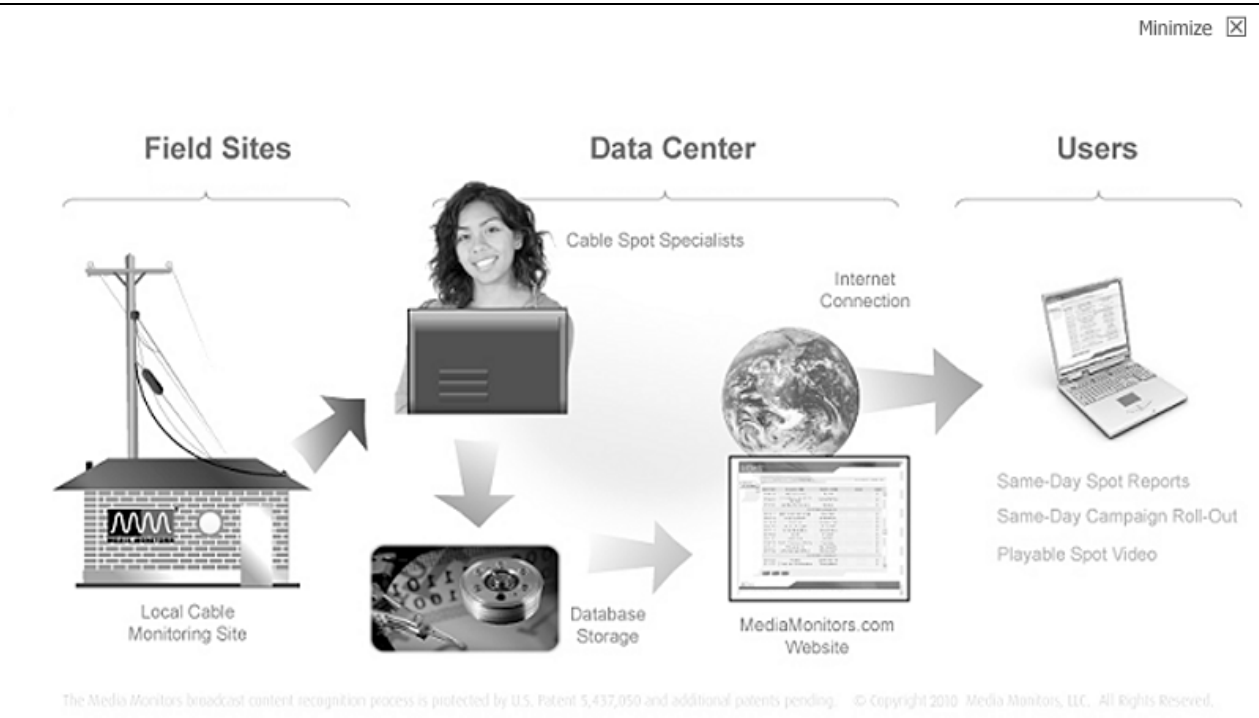

See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).

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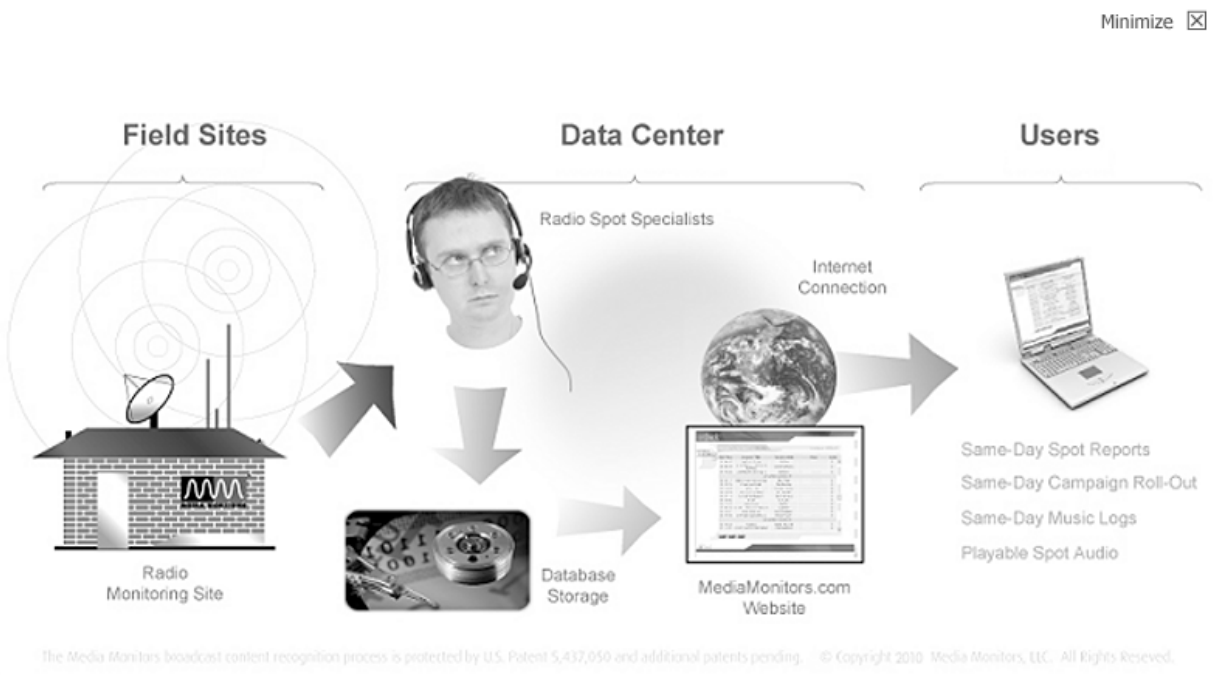

See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

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	 See Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
creating an abstract of said at least one query signal;.	The Media Monitors Service generates a fingerprint ("abstract") from each unknown commercial ("query signal"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a day and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
comparing the abstract of said at least one query signal to the abstract of said at least one reference signal to determine if the abstract of said at least one query signal matches the abstract of said at least one reference signal;	The Media Monitors Service compares the fingerprints created from the unknown commercials ("abstract[s] of said at least one query signal") to the fingerprints in the reference database ("abstract[s] of said at least one reference signal") to determine if there is a match. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to **identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a day and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast**

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	TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
creating at least one counter corresponding to one of said at least one reference signals, said at least one counter being representative of the number of times a match is found between the abstract of said at least one query signal and the abstract of said at least one reference signal; and	The method used by Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances ("number of times a match is found") of each of these songs and advertisements. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website

	of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
incrementing the counter corresponding to a particular reference signal when a match is found between an abstract of said at least one query signal and the abstract of the particular reference signal.	The method used by Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances of each of these songs and advertisements. The reported instances reflect an incremented counter. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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	RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
4. The method of claim 3 further comprising: recording an occurrence of a match between the abstract of said at least one query signal and the abstract of said at least one reference signal; and generating a report that identifies the reference signal whose abstract matched the abstract of	The method used by Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances ("number of times a match is found") of each of these songs and advertisements and generates same-day online reports ("generat[es] a report that identifies the reference signal whose abstract matched"). Therefore, the Media Monitors Service infringes U.S. Patent 7,346,472 either literally or by the doctrine of equivalents. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that **allows you to create same-day online reports**

said at least one query signal.	**anytime you want them, 24 hours a day**. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of

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	every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
8. A method for monitoring a plurality of reference signals, comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a method for monitoring and identifying ("monitoring") commercial spots and musical content ("a plurality of reference signals"). Therefore, the Media Monitors Service infringes U.S. Patent 7,346,472 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added).

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	Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
creating an abstract for each of the plurality of reference signals;	The Media Monitors Service generates a fingerprint ("creates an abstract") of each spot it is monitoring ("plurality of reference signals"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising**

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	occurrences 24 hours a daily and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The s**oftware continually crawls each web property each day.** Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
storing each of said abstracts in a reference database;	The Media Monitors Service uses a database ("a reference database") for storing the fingerprints ("abstracts") of the commercial content. **How are new advertisements identified?**

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	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
receiving at least one query signal to be analyzed;	The Media Monitors Service receives unknown commercial spots ("query signal[s]") to be identified ("analyzed"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. ...

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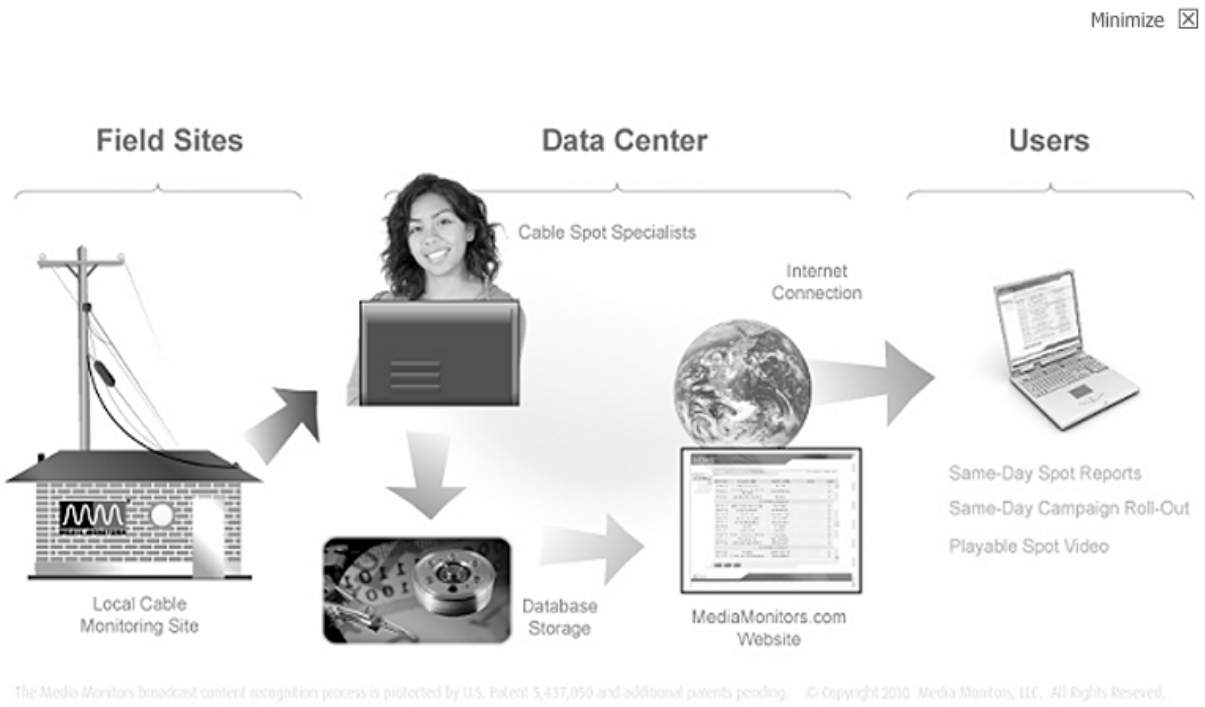
How does Media Monitors know what was played or what ran?

Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computer automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).



See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).

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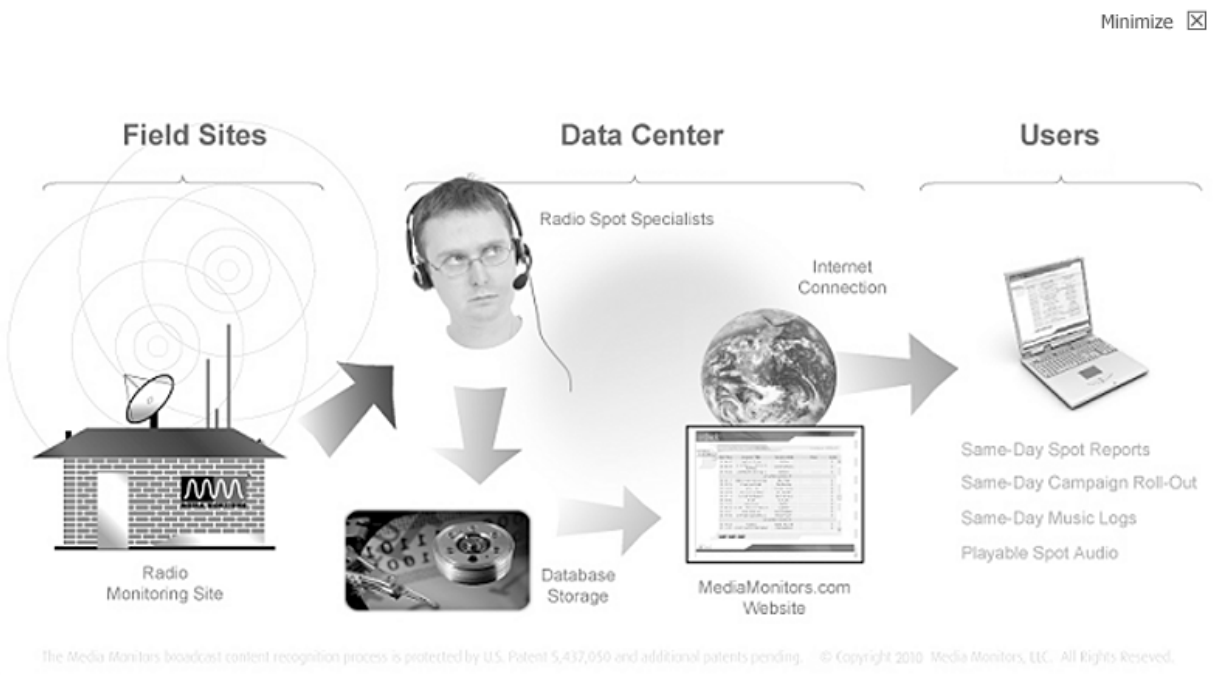

See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

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	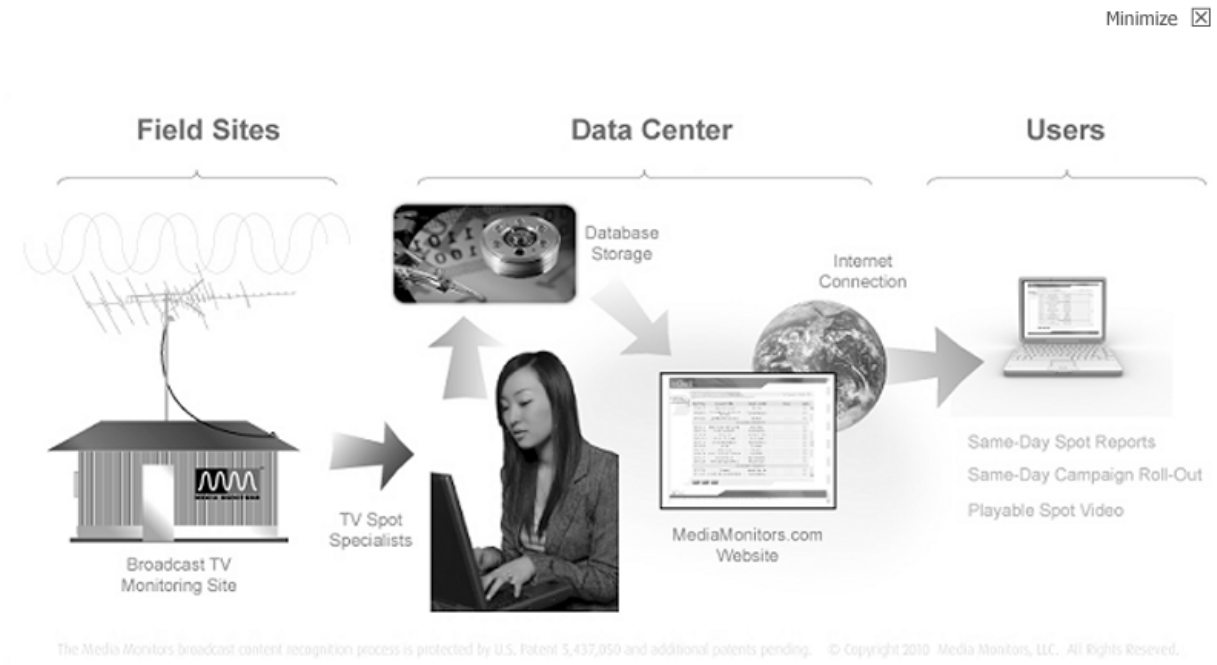 *See* Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
creating an abstract of each of the at least one query signals;	The Media Monitors Service generates a fingerprint ("create[s] an abstract") from each unknown commercial ("at least one query signal"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
locating an abstract in the reference database that matches the abstract of each at least one query signal;	The Media Monitors Services identifies the commercial by matching ("locating") an abstract in the reference database that matches the abstract of the unknown commercial ("query signal abstract"). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is **then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

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See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

> **MM at a glance**
>
> Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa.
>
> Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors **matches audio to fingerprints of millions of radio, TV and cable commercials**, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.**

See Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added).

> RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada.

See Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

> "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification."

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	See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
recording the identity of the reference signal whose abstract matched the abstract of each at least one query signal;	The Media Monitors Service then records the identity of the matching commercial ("reference signal") to provide competitive intelligence. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is **then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with

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	highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors **matches audio to fingerprints of millions of radio, TV and cable commercials**, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
creating at least one counter corresponding to one of said plurality of reference signals, said at least one counter being representative of the number of times a match is found between	The method used by Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances ("number of times a match is found") of each of these songs and advertisements. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking,

the abstract of said at least one query signal and an abstract of one of said plurality of reference signals; and	Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

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	"In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
incrementing the counter corresponding to a particular reference signal when a match is found between an abstract of said at least one query signal and the abstract of the particular reference signal.	The method used by Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances of each of these songs and advertisements. The reported instances reflect an incremented counter. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online **reports** anytime you want them, 24 hours a day. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors. *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp

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	(emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
11. A computerized system for	Media Monitors' media monitoring service (the "Media Monitors Service") is a computer-based system ("computerized

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monitoring and analyzing at least one signal [comprising]:	system") for monitoring and identifying ("monitoring and analyzing") commercial spot content ("at least one signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,346,472 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?**

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	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
a processor that creates an abstract of a signal using selectable criteria;	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "a processor") that generates a fingerprint ("creates an abstract") from the content ("signal"). The Media Monitors Service is operated by a team of specialists who research and identify new advertisements, indicating that fingerprints ("abstract[s]") are created using selectable criteria. Further discovery is required, including review of Media Monitors source code, to chart the infringing instrumentality. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where **teams of specialists research and identify new advertisers**. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a day** and also track major daily newspapers. **A patented algorithm detects**

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	the fingerprint of every spot and creates a record of when and where it was aired for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).
a first input that receives at least one reference signal to be monitored, said first input being coupled to said processor such that said processor may generate an abstract for each reference signal input to said processor;	The Media Monitors Service uses an input (a "first input") to ingest the content ("at least one reference signal") to be monitored. As is obvious to anyone skilled in the art, the input is coupled to the processor so that the processor can generate a fingerprint for each reference signal input to it. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web

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	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: **A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.** Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements**. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a day** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

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a reference database, coupled to said processor, that stores abstracts of each at least one reference signal;	The Media Monitors Service uses a database ("a reference database") for storing the fingerprints of the content ("abstracts of each at least one reference signal"). As is obvious to anyone skilled in the art, the database is coupled to the processor. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a second input that receives at least one query signal to be analyzed, said second input being coupled to said processor such that said processor may generate an abstract for each query signal;	The Media Monitors Service uses its local monitoring sites ("a second input") to receive unknown commercial spots ("at least one query signal") to be identified ("analyzed"). As is obvious to anyone skilled in the art, the input is coupled to the processor so that the processor can generate a fingerprint for each query signal input to it. **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major**

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	markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising** occurrences 24 hours a day and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

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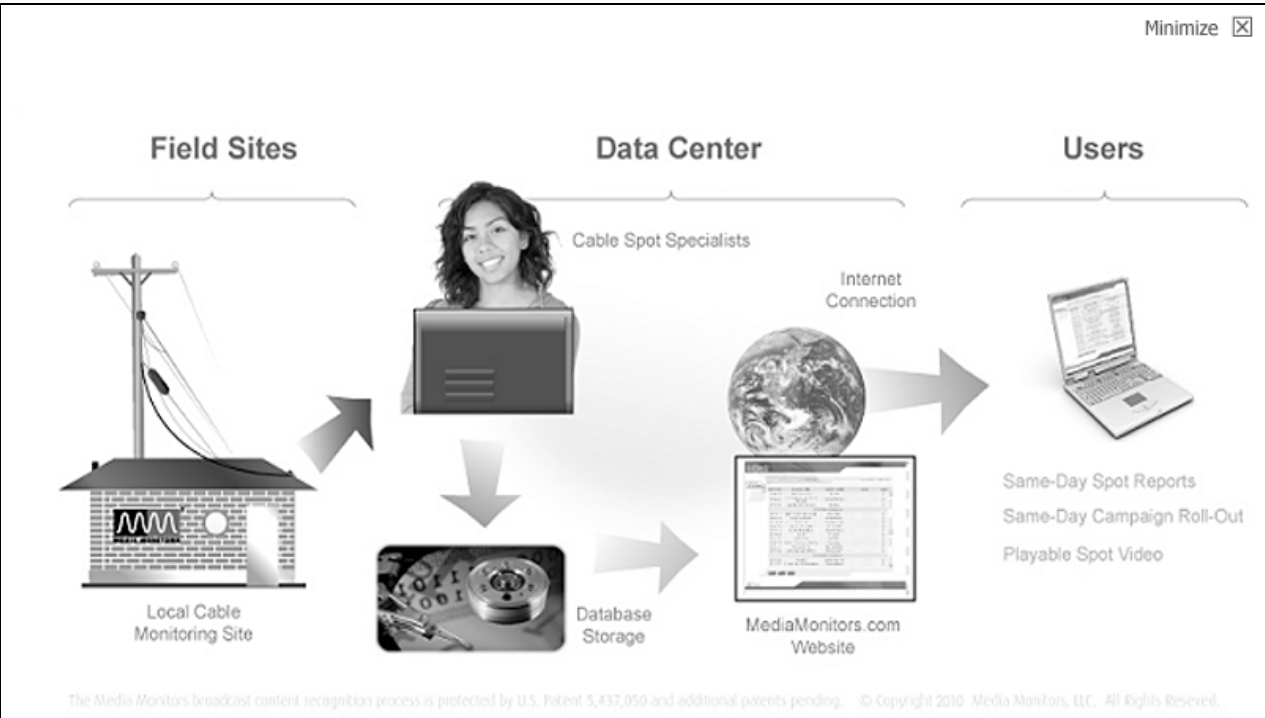

See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).

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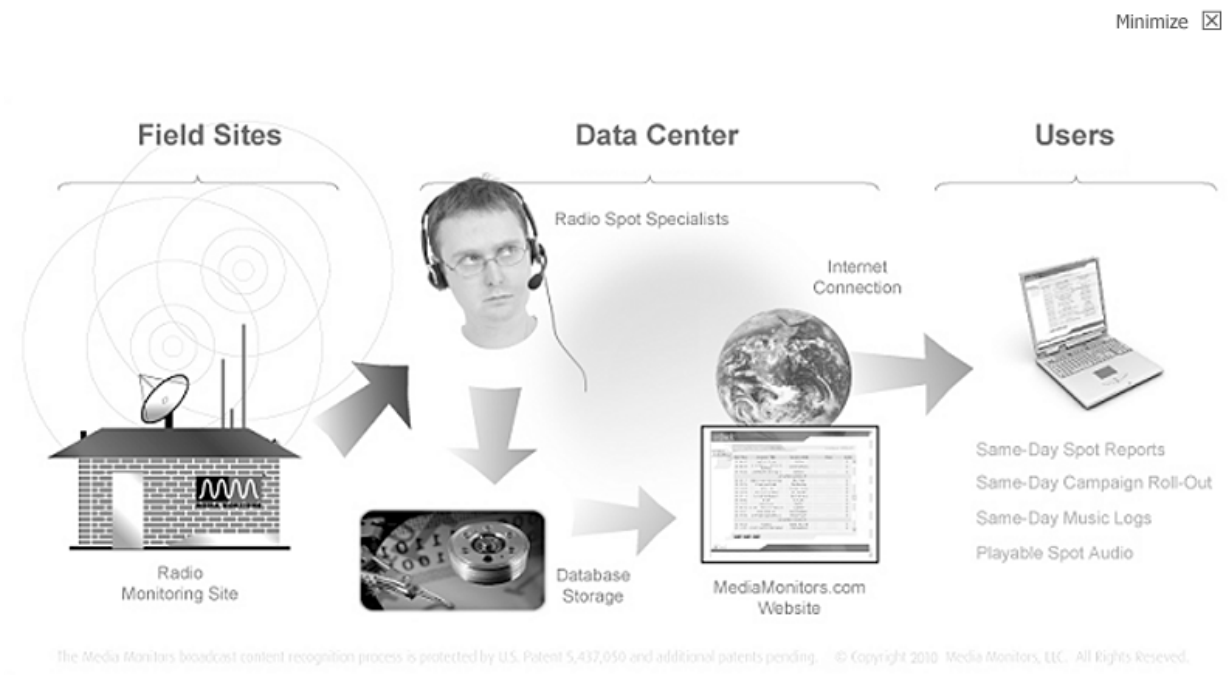

See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

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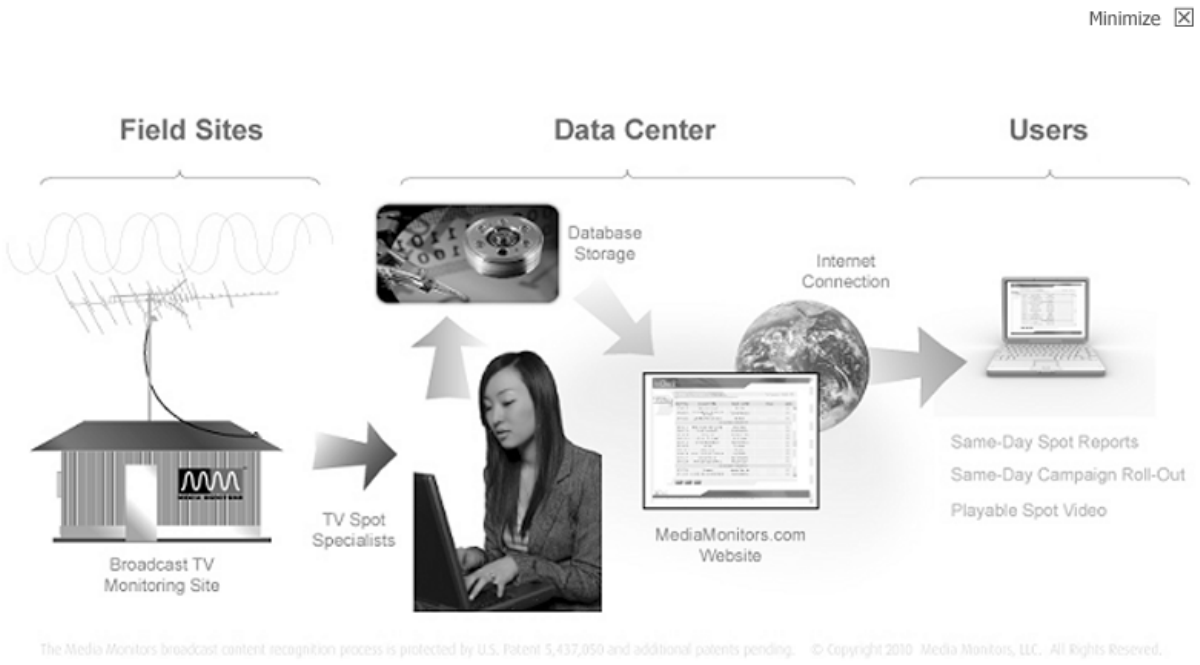
<table>
<tr><td></td><td> 

See Exhibit 8, Media Monitors “Broadcast TV” webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).</td></tr>
<tr><td>a comparing device, coupled to said reference database and to said second input, that compares an abstract of said at least one query signal to the abstracts stored in the reference database to determine if the abstract of said at least one query signal matches any of the stored abstracts, wherein the comparing device</td><td>The Media Monitors Service includes a device (a “comparing device,” coupled to the reference database and to the second input) that compares the fingerprint created from an unknown commercial (“abstract of said at least one query signal”) to the fingerprints in the reference database (“abstracts stored in the reference database”) to determine if there is a match. The comparing device identifies matches and forwards them to a discovery team for verification. This process implies that multiple matches may be found and scored (“index of relatedness”). Further discovery is required, including review of Media Monitors source code, to chart the infringing instrumentality.

The online advertising data collection & processing follows four steps, listed below:

Step 1: The software continually crawls each web property each day.</td></tr>
</table>

identifies at least two abstracts in the reference database that match the abstract of said at least one query signal and an index of relatedness to said at least one query signal for each of said at least two matching abstracts.	Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences a day and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers.** Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web

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	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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Blue Spike – Monitoring and Analyzing Signals – U.S. Patent 7,949,494

Infringement Claim Chart

Claims	**Clear Channel Broadcasting's Media Monitors and RCS monitoring and verification software, systems, and technology.**
1. A system for identifying at least one reference signal comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a system for monitoring and identifying ("identifying") commercial spot content ("at least one reference signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow

	technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
a first input that receives at least one reference signal to be identified;	The Media Monitors Service uses an input (a "first input") to ingest commercial spots ("at least one reference signal") to be identified. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web

	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: **A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.** Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements**. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a first processor that creates an abstract of each reference signal input to said first processor through said first input wherein the abstract comprises signal characteristic parameters configured to differentiate between versions of said reference signal;	The Media Monitors Service uses a fingerprinting algorithm or software that generates a fingerprint ("digital reference signal abstract") of an audio advertisements ("reference signal"). The fingerprint comprises signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and local radio advertisements ("differentiate between said plurality of different versions of said reference signal"). Also, the Media Monitors Service is designed to differentiate between over 40 radio formats ("versions"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets.

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Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

"In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."**

See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada.

See Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

MM at a glance

Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa.

Using the patented technology of Media Monitors, Sales Executives can have details on a

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	particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
at least one reference database for storing at least one abstract;	The Media Monitors Service uses a database ("at least one reference database") for storing the fingerprint ("at least one abstract"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media

	Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a receiver that receives at least one query signal;	The Media Monitors Service uses its local monitoring sites ("a receiver") to receive unknown commercial spots ("at least one query signal"). How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computer automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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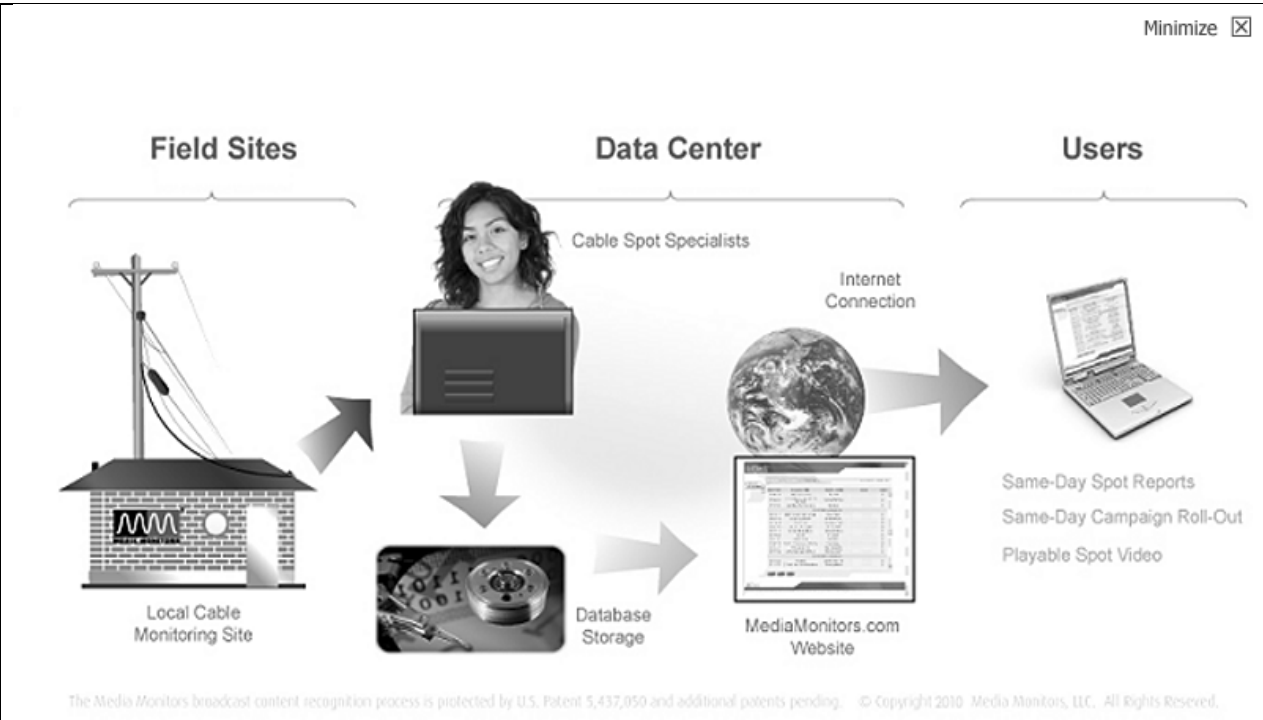
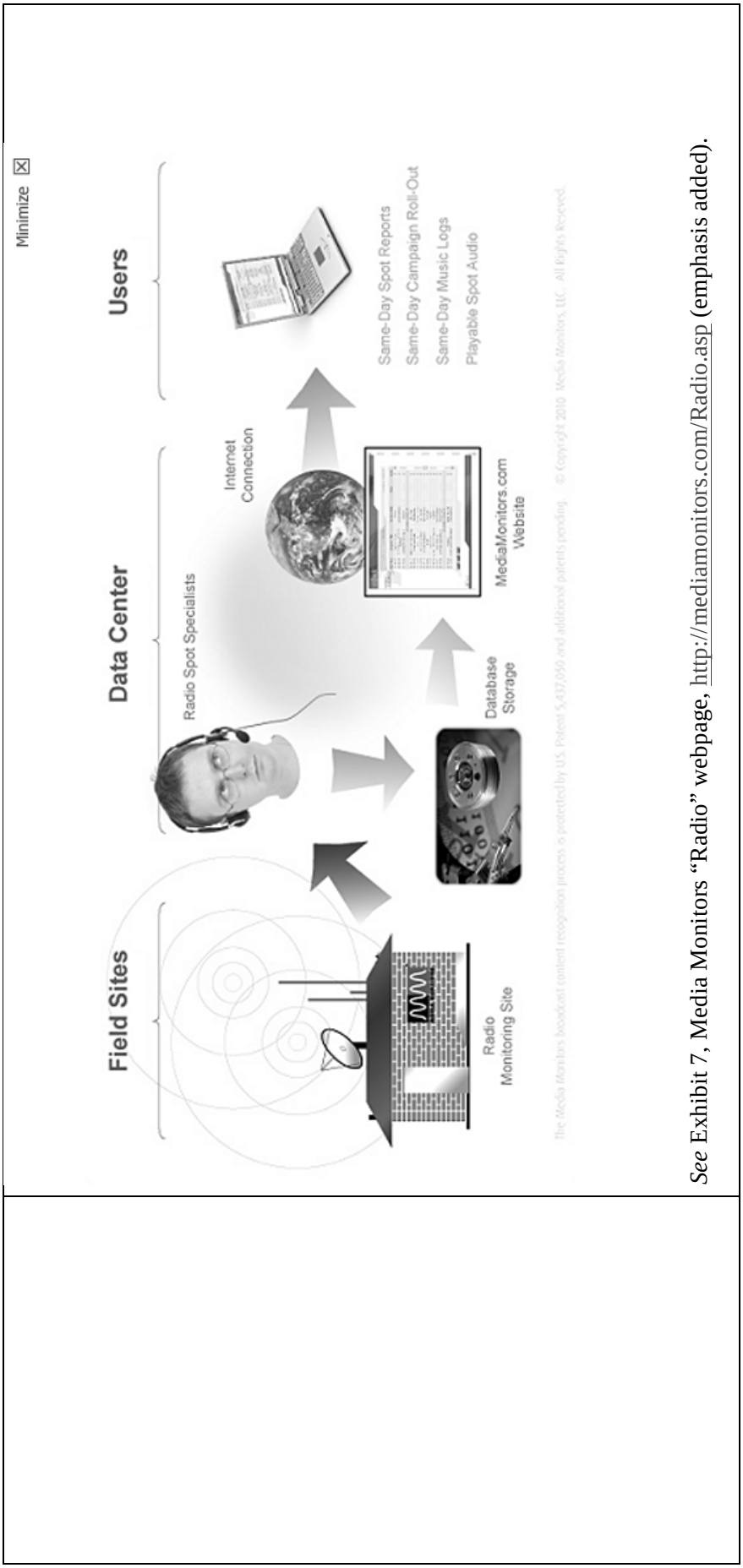
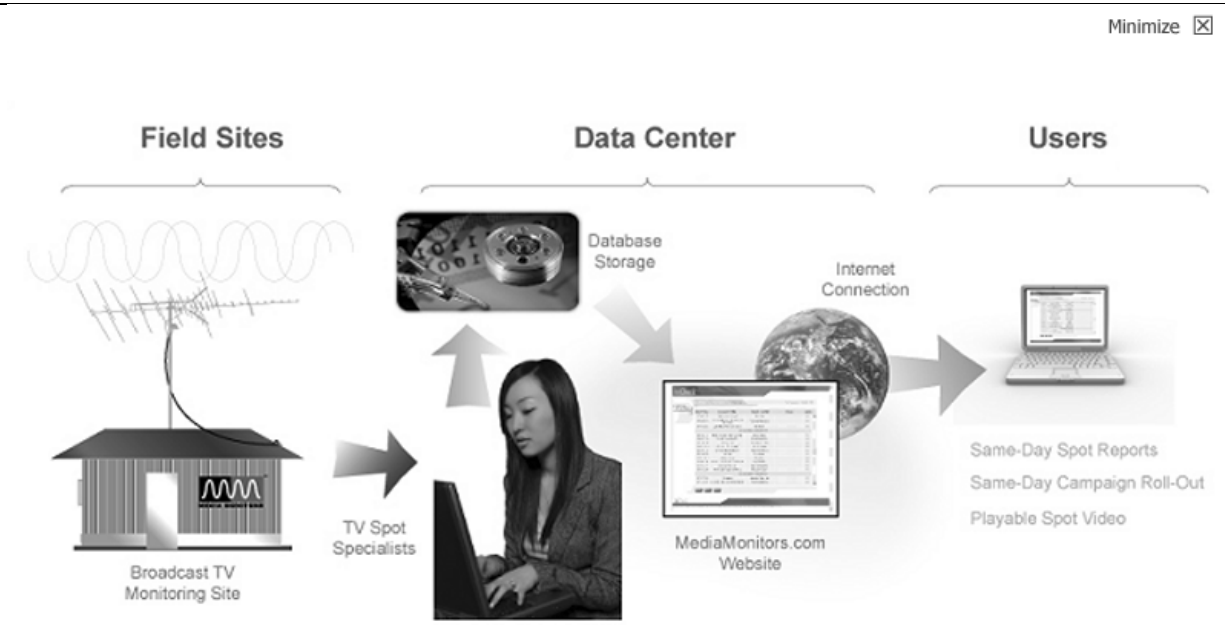


See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).



See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

	 *See* Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
a second processor that creates an abstract of said query signal received by said receiver, based on the parameters; and	The Media Monitors Service uses audio fingerprinting software (it is obvious to one skilled in the art that software must be run on a processor, "a second processor") to generate a fingerprint ("create[] an abstract") of the unknown commercial ("query signal") based on the parameters. **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web

	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
a comparing device that compares the created query signal abstract to the reference signal abstracts in the at least one database, each abstract in the at least one reference database corresponding to a version of a reference signal, to determine whether the query signal abstract matches any of the stored at least one abstract in the at least one reference database.	The Media Monitors Service includes a device ("a comparing device") that compares the fingerprint created from the unknown commercial ("the created query signal abstract") to the reference fingerprints previously stored in the reference database ("the reference signal abstract in the at least one database") to determine if they match. The fingerprint also comprises signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and cable advertisements ("differentiate between said plurality of different versions of said reference signal"). Also, the Media Monitors Service is designed to differentiate between over 40 radio formats ("versions"). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate**

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	verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
4. The system of claim 1, wherein the reference signals comprise at least one of images, audio, video, and combinations thereof.	As established above, the Media Monitors Service infringes Claim 1, and the content ("data signals") monitored comes from both radio ("audio") and TV ("video"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, **Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online

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	reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of **radio**, **TV** and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors. *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added).
5. The system of claim 1, wherein the stored abstracts are derived from one of a cognitive feature or a perceptible characteristic of the associated reference signals.	As established above, the Media Monitors Service infringes Claim 1. The fingerprint ("stored abstract") is "detected" ("derived") from the advertisement ("reference signal"), implying that the fingerprint is derived from a cognitive feature and/or perceptual characteristic of the reference signal. Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

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11. A system for analyzing and identifying at least one reference signal, comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a system for monitoring and identifying ("identifying and analyzing") commercial spot content ("at least one reference signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

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	How are new advertisements identified? **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
a first input for receiving at least one reference signal to be identified,	The Media Monitors Service uses an input (a "first input") to ingest commercial spots ("at least one reference signal") to be identified. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below:

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	Step 1: The software continually crawls each web property each day. Step 2: **A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.** Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements**. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a first processor for creating an abstract of each reference signal received based on perceptual characteristics representative of parameters to differentiate between versions of the reference signal;	The Media Monitors Service uses fingerprint software (it is obvious to one skilled in the art that software must be run on a processor, "a first processor") that generates a fingerprint ("creat[es] an abstract") of each commercial spot ("each reference signal"). The fingerprint ("abstract") is "detected" from the advertisement ("reference signal"), Thus, the fingerprint can be perceived ("is based on perceptual characteristics"). The Media Monitors Service differentiates between radio, broadcast TV, and cable advertisements, as well as 40 different radio formats ("differentiates between versions of the reference signal"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can

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	easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
a reference database for storing abstracts of each reference signal received in a database;	The Media Monitors Service uses a database ("a reference database") to store the reference fingerprints ("abstracts of each reference signal"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface.

	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a second input for receiving at least one query signal to be identified,	The Media Monitors Service uses its local monitoring sites ("a second input") to receive the unknown commercial spots ("at least one query signal") to be identified. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computer automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web

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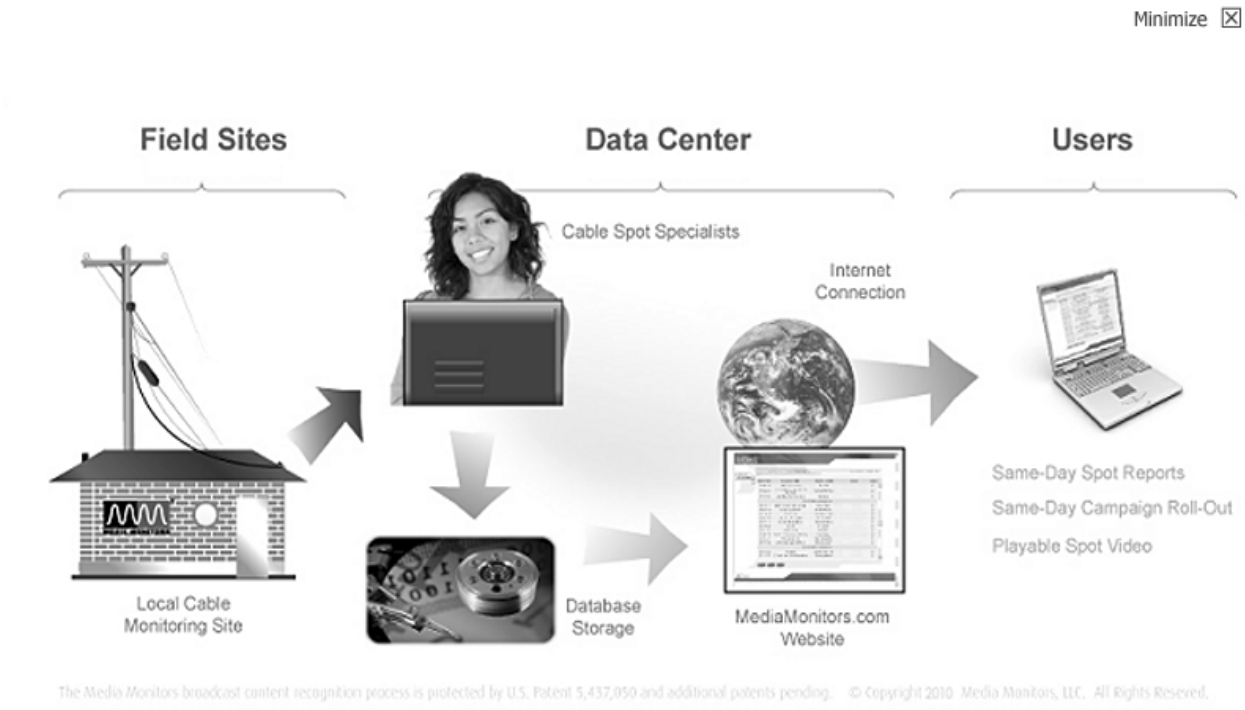
interface.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).



See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).

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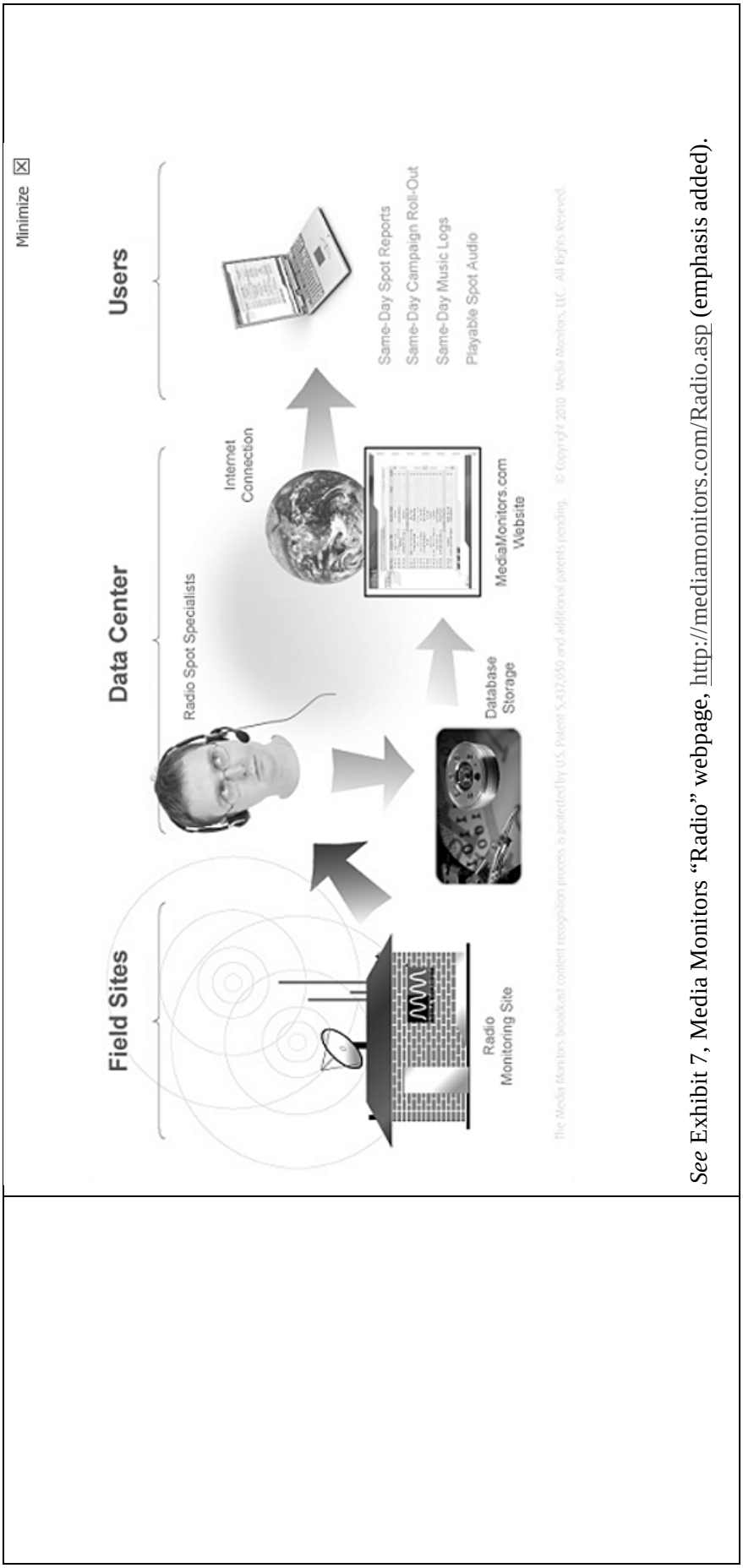
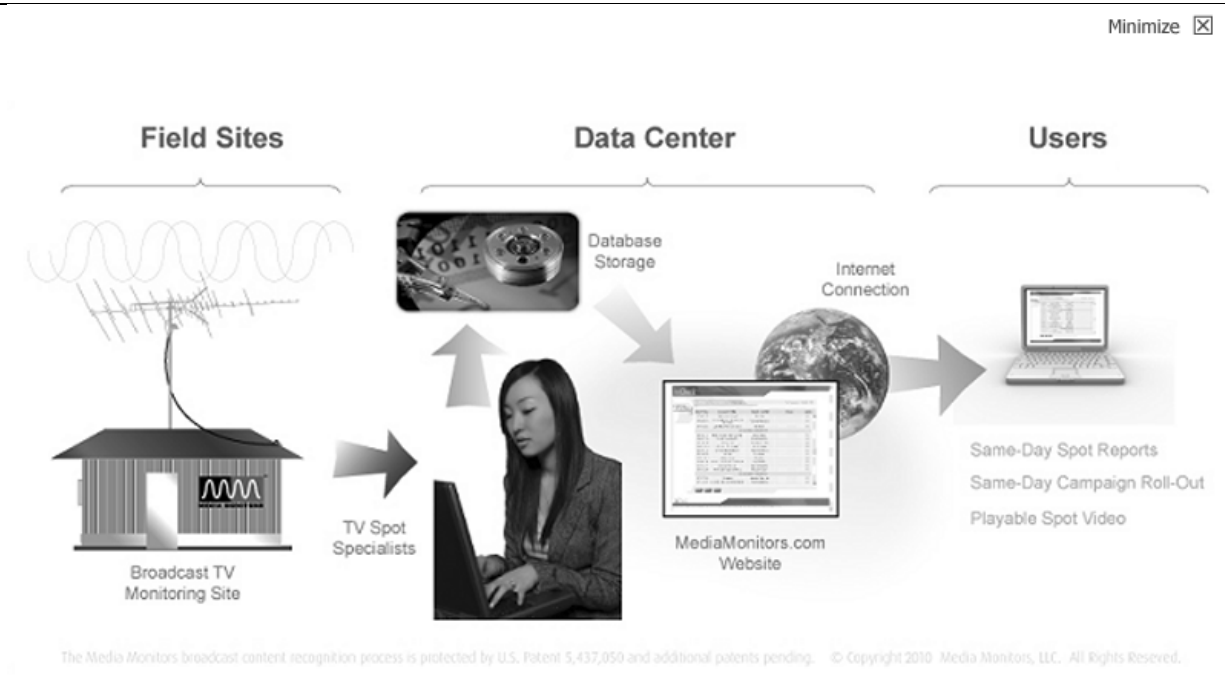


See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

	 *See* Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
a second processor for creating an abstract of the received query signal based on the parameters;	The Media Monitors Service uses audio fingerprinting software (it is obvious to one skilled in the art that software must be run on a processor, "a second processor") to generate a fingerprint ("creat[e] an abstract") of the unknown commercial ("query signal") based on the parameters. **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web

	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
and a comparing device for comparing an abstract of said received query signal to the abstracts stored in the database to determine if the abstract of said received query signal is related to any of the stored abstracts.	The Media Monitors Service includes a device ("a comparing device") that compares the fingerprint created from the unknown commercial ("abstract of said received query signal") to the reference fingerprints previously stored in the reference database ("abstracts stored in the database") to determine if they match or can be recognized or identified (are "related"). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."**

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	See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
17. The system of claim 11, wherein at least one abstract comprises data describing a portion of the characteristics of its associated reference signal.	As established above, the Media Monitors Service infringes Claim 11. The Media Monitors Service uses a fingerprinting algorithm or software that generates a fingerprint ("at least one abstract") of an audio advertisements ("reference signal"). The fingerprint ("stored abstract") is "detected" from the advertisement ("reference signal"), thus the fingerprint can be perceived ("describe[es] a portion of the characteristics of its associated reference signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify

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hundreds of new advertisers and commercials every day.

…

How are new advertisements identified?

Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

"In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."**

See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada.

See Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added).

MM at a glance

Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human

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	attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
18. The system of claim 17, wherein the characteristics of the reference signal being described comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic or combinations thereof.	As established above, the Media Monitors Service infringes Claim 17. The fingerprint ("stored abstract") is "detected" ("derived") from the advertisement ("reference signal"), The fingerprint ("stored abstract") is "detected" ("derived") from the advertisement ("reference signal"), thus the fingerprint can be perceived ("comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic, or combinations thereof"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

	"In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
20. The system of claim 11, wherein the system further comprises a security controller for applying a cryptographic protocol to the abstract of said reference signal, said query signal, or both said reference signal and said query signal.	As established above, the Media Monitors Service infringes Claim 11. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that a cryptographic protocol, such as a hash, is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the

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	spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
21. The system of claim 20, wherein the cryptographic protocol is one of at least a hash or digital signature and further comprising storing the hashed abstract and/or digitally signed abstract in the reference database.	As established above, the Media Monitors Service infringes Claim 20. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that a hash is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).

22. The system of claim 11, further comprising a transmitter for distributing at least one signal based on the comparison step.	As established above, the Media Monitors Service infringes Claim 11. The Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances ("number of times a match is found") of each of these songs and advertisements and generates same-day online reports ("distribut[es] at least one signal based on the comparison step"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that **allows you to create same-day online reports anytime you want them, 24 hours a day**. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). How are new advertisements identified? Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
29. A system for determining whether a query signal matches any of a plurality of reference signal, comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a system for determining whether an unknown commercial ("query signal") matches any of a set of known commercials ("any of a plurality of reference signal[s]"). Therefore, the Media Monitors Service infringes U.S. Patent 7,949,494 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology**

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	reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added) .
a first processor configured to create a plurality of reference signal abstracts for each one of a plurality of reference signals, wherein each one of said plurality of reference signal abstracts comprises signal characteristic parameters configured to differentiate between other versions of that one of said plurality of reference signals;	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "a first processor") that generates fingerprints ("reference signal abstract[s]") from the known commercials ("plurality of reference signals"). The fingerprint comprises signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and cable advertisements ("differentiate between said plurality of different versions of said multimedia work"). Also, the Media Monitors Service is designed to differentiate between over 40 radio formats ("versions"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added) "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast**

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	TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
a reference database storing said plurality of reference signal abstracts;	The Media Monitors Service uses a database ("a reference database") for storing the reference fingerprints ("plurality of reference signal abstracts"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added) The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media

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	Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a device configured to determine if a query signal matches any one plurality of reference signals by comparing a query signal abstract of said query signal with at least one abstract of said plurality of reference signal abstracts stored in said reference database.	The Media Monitors Service includes a device ("a comparing device") that compares a fingerprint created from an unknown commercial ("query signal abstract") to the fingerprints of the known commercials ("plurality of reference signal abstracts stored in said reference database") to determine if they match. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of

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	each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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Blue Spike – Monitoring and Analyzing Signals – U.S. Patent 7,660,700

Infringement Claim Chart

Claim	**Clear Channel Broadcasting's Media Monitors and RCS monitoring and verification software, systems, and technology.**
1. An electronic system for monitoring and analyzing at least one signal comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a computer-based system ("electronic system") for monitoring and identifying ("monitoring and analyzing") commercial spot content and other media ("at least one signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000**

	radio stations in the United States, Canada and other countries. RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
a first input that receives at least one reference signal to be monitored;	The Media Monitors Service uses an input (a "first input") to ingest commercial spots ("at least one reference signal") to be monitored. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web

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	interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: **A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.** Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements**. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a first processor that creates an abstract of each reference signal input to said first processor through said first input wherein the abstract comprises signal characteristic parameters configured to differentiate between a plurality of versions of the reference signal;	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, "a processor") that generates a fingerprint ("creates an abstract") from the content ("reference signal") input to it. The fingerprint comprises signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and local radio advertisements ("differentiate between said plurality of different versions of said multimedia work"). Also, the Media Monitors Service is designed to differentiate between over 40 radio formats ("versions"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?**

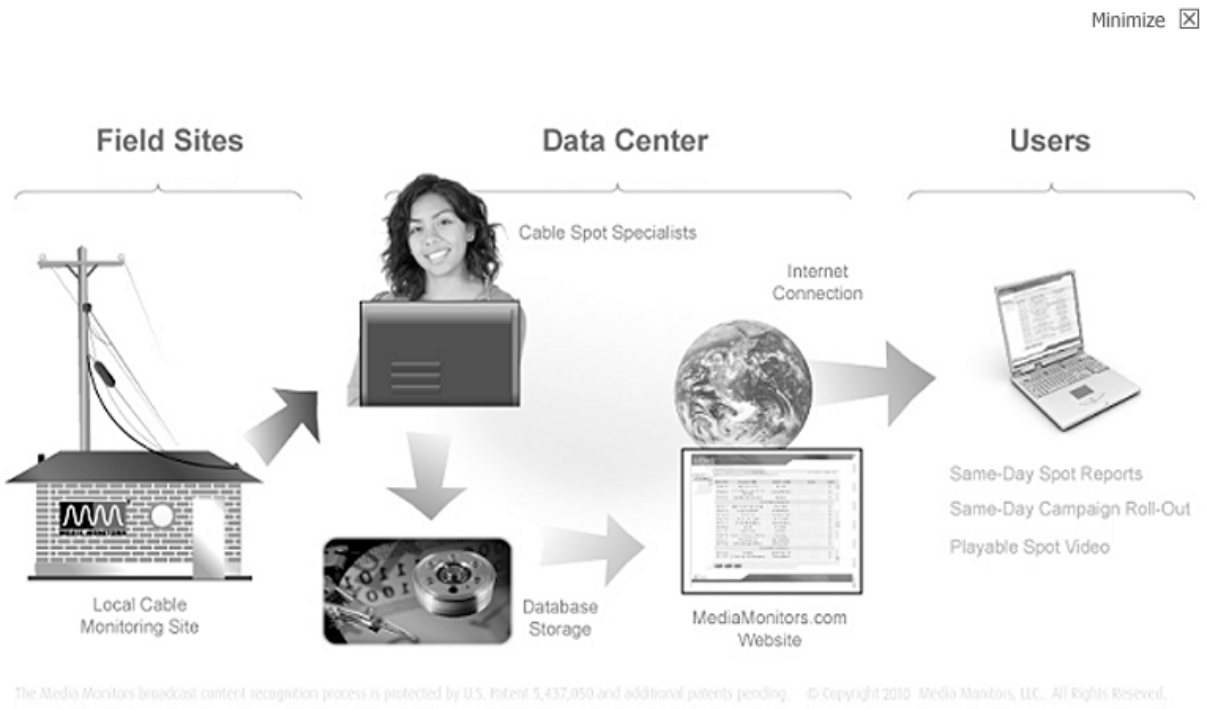
	Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
a second input that receives at least one query signal to be analyzed,	The Media Monitors Service uses its local monitoring sites ("a second input") to ingest commercials ("at least one query signal") to be identified ("analyzed"). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets.** Our patented method of fingerprinting technology is then used to identify spots, and

program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

"**In most major markets, we capture radio, broadcast TV, and local cable advertising** occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."

See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).



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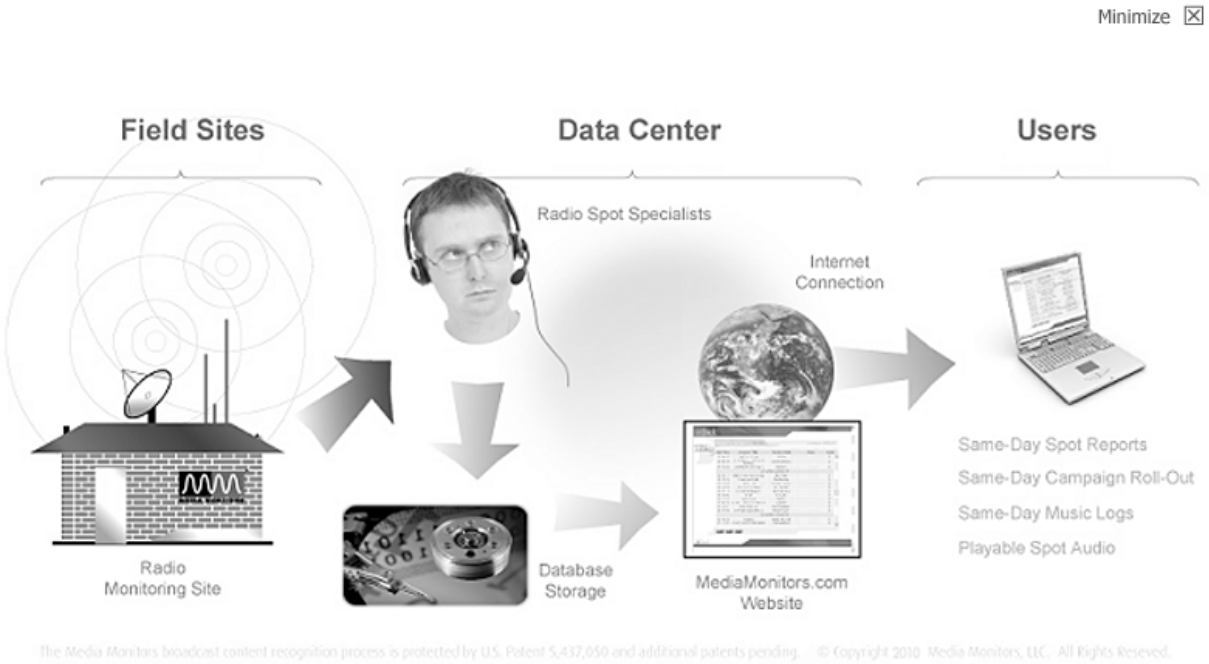
	See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).  *See* Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

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	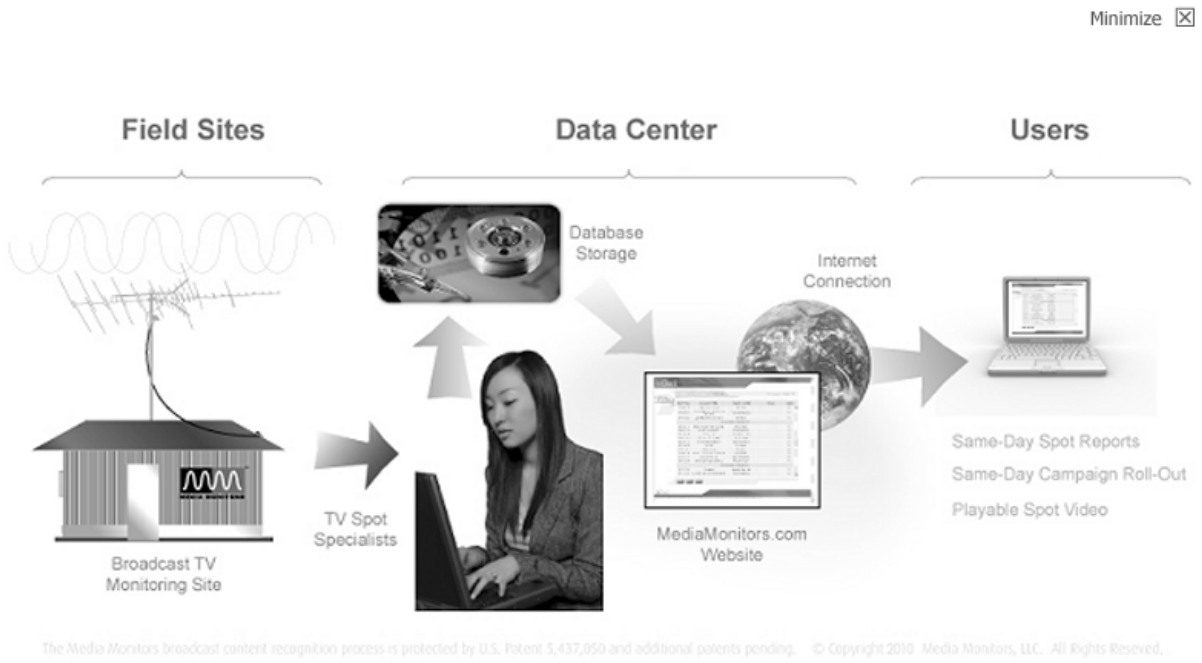 *See* Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
a second processor that creates an abstract of each query signal wherein the abstract comprises signal characteristic parameters of the query signal;	The Media Monitors Service uses a fingerprinting algorithm or software (it is obvious to one skilled in the art that software must be run on a processor, here "a second processor") that takes the unknown commercial ("query signal") and generates a fingerprint ("creates an abstract") from it. The fingerprint comprises signal characteristic parameters that enable the fingerprint to differentiate between radio, broadcast TV, and local radio advertisements. Also, the Media Monitors Service is designed to differentiate between over 40 radio formats. **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research

	and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification.**" *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
a reference database that stores abstracts of each at least one reference signal;	The Media Monitors Service uses a database ("a reference database") for storing fingerprints of the known commercial content ("abstracts of each at least one reference signal"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display**

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	advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
a comparing device that compares an abstract of said at least one query signal to the abstracts stored in the reference database to determine if the abstract of said at least one query signal matches any of the stored abstracts wherein a match indicates the query signal is a version of at least one of the reference signals.	The Media Monitors Service includes a device that compares the fingerprint of the unknown commercial ("abstract of said at least one query signal") to the fingerprints in the reference database ("abstracts stored in the reference database") to determine if there is a match. A match indicates that the query signal is a version of at least one of the reference signals. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The **software continually crawls each web property each day.** Step 2: A **proprietary program finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of

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	each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
6. The system of claim 1, wherein at least two of the stored abstracts comprise information corresponding to two versions of at least one reference signal.	As established above, the Media Monitors Service infringes Claim 1. The Media Monitors Service algorithm detects the fingerprint of every spot ("versions of at least one reference signal") on mediums such as broadcast TV, radio, and cable. Fingerprints ("abstracts") of these versions are stored in a reference database. Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
7. The system of claim 1,	As established above, the Media Monitors Service infringes Claim 1. As established above, the Media Monitors Service

wherein the stored abstracts comprise data describing a portion of the characteristics of its associated reference signal.	infringes Claim 1. The fingerprint ("stored abstract") is "detected" from the advertisement ("reference signal"), thus the fingerprint represents characteristics of the advertisement ("reference signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
8. The system of claim 7, wherein the characteristics of the reference signal being described comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic or combinations thereof.	As established above, the Media Monitors Service infringes Claim 7. The fingerprint ("stored abstract") is "detected" ("derived") from the advertisement ("reference signal"), The fingerprint ("stored abstract") is "detected" ("derived") from the advertisement ("reference signal"), thus the fingerprint can be perceived ("comprise at least one of a perceptible characteristic, a cognitive characteristic, a subjective characteristic, a perceptual quality, a recognizable characteristic, or combinations thereof"). Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). instrumentality.
10. The system of claim 1, wherein the system applies a cryptographic protocol to the abstract of said reference signal, said query signal, or both said reference signal and said query signal.	As established above, the Media Monitors Service infringes Claim 1. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that a cryptographic protocol, such as a hash, is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for

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<table>
<tr><td></td><td>accurate verification. Then, <u>in near real time</u>, <u>we post it to our website</u>, where you can hear the spot or see the video.”

See Exhibit 5, Media Monitors “Demo” video, http://mediamonitors.com/Demo.asp (emphasis added).</td></tr>
<tr><td>11. The system of claim 10, wherein the cryptographic protocol is one of at least a hash or digital signature and further comprising storing the hashed abstract and/or digitally signed abstract.</td><td>As established above, the Media Monitors Service infringes Claim 10. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that a hash is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents.

How does Media Monitors know what was played or what ran?

Media Monitors’ patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our <u>computers</u> automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.

…

How are new advertisements identified?

Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of <u>fingerprinting technology</u> is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

See Exhibit 3, Media Monitors “FAQ” webpage, http://mediamonitors.com/faq.asp (emphasis added).

“In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented <u>algorithm detects the fingerprint</u> of every spot and creates a record of when and where it was aired for accurate verification. Then, <u>in near real time</u>, <u>we post it to our website</u>, where you can hear the spot or see the video.”</td></tr>
</table>

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	See Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
40. A process for analyzing and identifying at least one signal, comprising:	Media Monitors' media monitoring service (the "Media Monitors Service") is a process for monitoring and identifying ("analyzing and identifying") commercial spot content ("at least one signal"). Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **MM at a glance** **Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV** and provides sale and marketing tools for media research firms and advertising agencies. **Our patented broadcast monitoring technology reviews top rated advertising media in major markets.** It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa. Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. **Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors.** *See* Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added). Moving Beyond Radio **RCS developed real time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries.** RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis

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	added). **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).
receiving at least one reference signal to be identified,	The Media Monitors Service receives commercial spots ("at least one reference signal") to be identified. How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). The **online advertising data collection & processing** follows four steps, listed below:

	Step 1: The software continually crawls each web property each day. Step 2: **A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.** Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements**. Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
creating an abstract of each reference signal received based on perceptual characteristics representative of parameters to differentiate between versions of the reference signal;	The Media Monitors Service detects a fingerprint ("creat[es] an abstract") of each commercial spot ("each reference signal"). The fingerprint ("abstract") is "detected" from the advertisement ("reference signal"), Thus, the fingerprint can be perceived ("is based on perceptual characteristics"). The Media Monitors Service differentiates between radio, broadcast TV, and cable advertisements, as well as 40 different radio formats ("differentiates between versions of the reference signal"). **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

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	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable.** Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada. *See* Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis added). Access detailed **local radio occurrences in close to 40 different radio formats**. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets. *See* Exhibit 9, Media Monitors "Radio" webpage, http://www.mediamonitors.com/services/radio (emphasis added).
storing abstracts of each reference signal received in a database;	The Media Monitors Service uses a database to store the fingerprints ("abstracts of each reference signal"). **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. **Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are forwarded to our **Data Centers**, where teams of specialists research and **identify new advertisers. Play information is then added to the existing online database** where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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	The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program **finds display advertising from each website, downloads the creative files,** and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis** to match each creative observation to **our existing database library and identify new advertisements.** Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. **Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.** *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added).
receiving at least one query signal to be identified,	The Media Monitors Service uses its local monitoring sites to receive unknown commercials ("query signal[s]"). How does Media Monitors know what was played or what ran? **Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computer automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.** … **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets.** Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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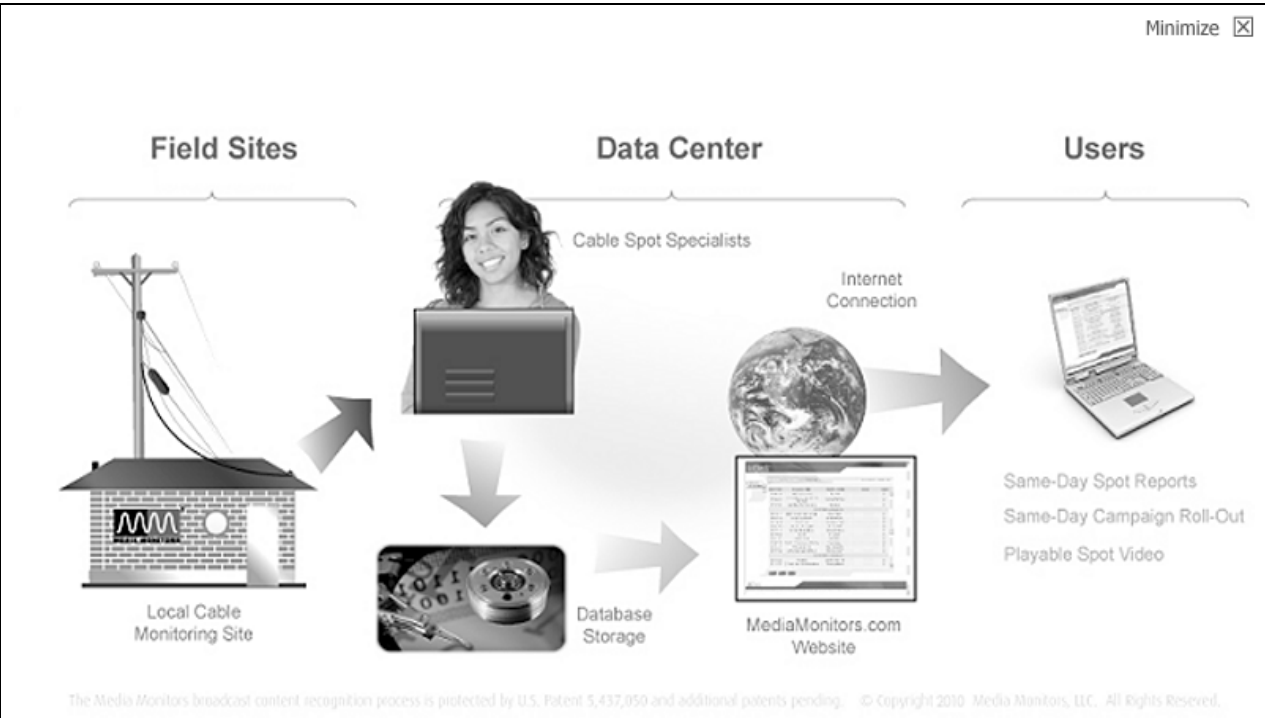

See Exhibit 6, Media Monitors "Local Cable" webpage, http://mediamonitors.com/LocalCable.asp (emphasis added).

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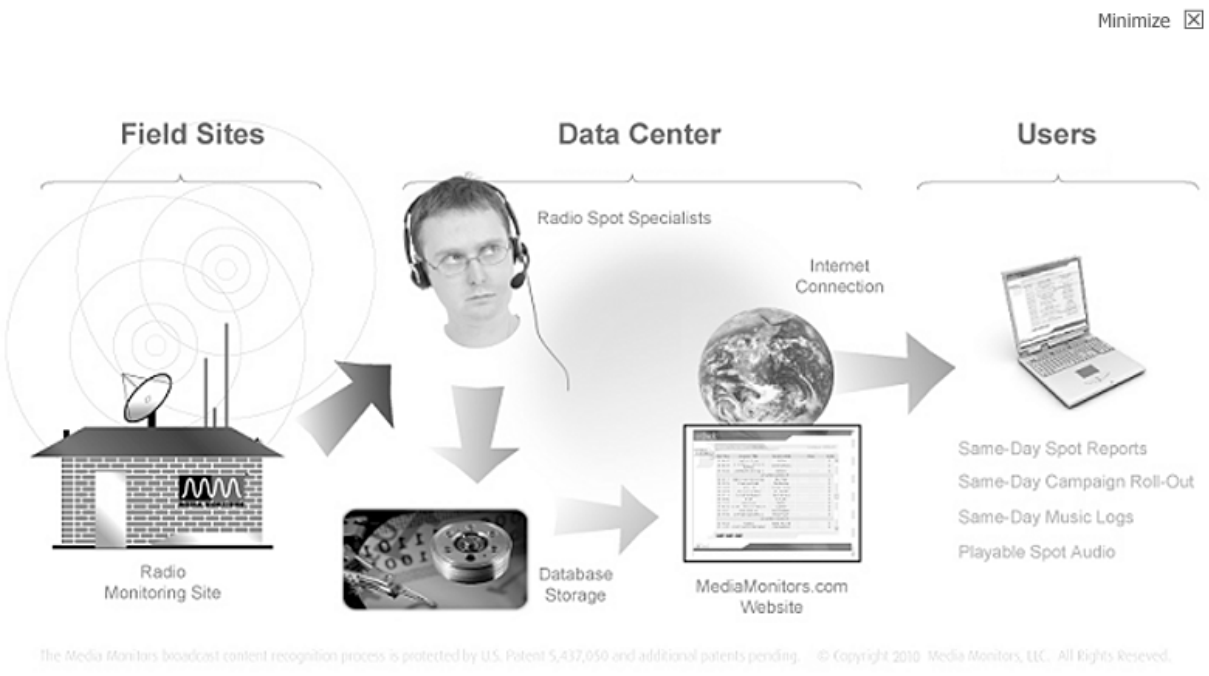

See Exhibit 7, Media Monitors "Radio" webpage, http://mediamonitors.com/Radio.asp (emphasis added).

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	 See Exhibit 8, Media Monitors "Broadcast TV" webpage, http://mediamonitors.com/BroadcastTV.asp (emphasis added).
creating an abstract of the received query signal based on the parameters; and	The Media Monitors Service generates a fingerprint ("creat[es] an abstract") of the unknown commercial ("received query signal") based on the parameters. **How are new advertisements identified?** **Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output.** These are **forwarded to our Data Centers,** where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

	See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "**In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
comparing an abstract of said received query signal to the abstracts stored in the database to determine if the abstract of said received query signal is related to any of the stored abstracts.	The Media Monitors Service compares the fingerprint created from the unknown commercial ("abstract of said received query signal") to the fingerprints in the reference database ("abstracts stored in the database") to determine if there is a match—*i.e.*, whether it is related. The **online advertising data collection & processing** follows four steps, listed below: Step 1: The software continually crawls each web property each day. Step 2: A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date. Step 3: **Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.** Step 4: **The previous day's newly observed data for known creative is available in Media Monitors the following day**. Brand new creative is reviewed by our Discovery staff **to identify the display advertising content** and that data is typically available within 2-3 days. *See* Exhibit 4, Media Monitors "Local Internet" webpage, http://mediamonitors.com/Internet.asp (emphasis added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers**. A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired for accurate verification."** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
49. The process of claim 40, wherein the process further	As established above, the Media Monitors Service infringes Claim 40. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the

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comprises applying a cryptographic protocol to the abstract of said reference signal, said query signal, or both said reference signal and said query signal.	Media Monitors Service indicates the likelihood that a cryptographic protocol, such as a hash, is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
50. The process of claim 49, wherein the cryptographic protocol is one of at least a hash or digital signature and further comprising storing the	As established above, the Media Monitors Service infringes Claim 49. The Media Monitors Service detects fingerprints of millions of advertisements and is capable of posting the results on its website in near real time. The speed of the Media Monitors Service indicates the likelihood that a hash is employed. Further discovery, including review of the Media Monitors Service source code, is required. Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents.

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hashed abstract and/or digitally signed abstract.	**How does Media Monitors know what was played or what ran?** Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our **computers** automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. … **How are new advertisements identified?** Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of **fingerprinting technology** is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added). "In most major markets, **we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily** and also track major daily newspapers. **A patented algorithm detects the fingerprint of every spot and creates a record of when and where it was aired** for accurate verification. **Then, in near real time, we post it to our website,** where you can hear the spot or see the video.**"** *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added).
51. The process of claim 40, further comprising distributing at least one signal based on the comparison step.	As established above, the Media Monitors Service infringes Claim 40. The Media Monitors tracks the success of each song and creates a record of when and where advertisements aired ("creating at least one counter corresponding to one of said at least references signals"). Media Monitors records the instances ("number of times a match is found") of each of these songs and advertisements and generates same-day online reports ("distribut[es] at least one signal based on the comparison step"). Therefore, the Media Monitors Service infringes U.S. Patent 7,660,700 either literally or by the doctrine of equivalents. **MM at a glance** Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking,

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Broadcast TV and Local Cable TV and provides sale and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that **allows you to create same-day online reports anytime you want them, 24 hours a day**. Media Monitors provides **competitive intelligence information** for markets in the United States, Canada, United Kingdom, Australia, India, and South Africa.

Using the patented technology of Media Monitors, Sales Executives can have **details on a particular advertisement or an entire campaign** at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials, and scans hundreds of newspapers for ad data. All of this information is available on the easy-to-use website of Media Monitors**.**

See Exhibit 1, Media Monitors "Company Overview" webpage, http://mediamonitors.com/CompanyOverview.asp (emphasis added).

How are new advertisements identified?

Audio and video from top-rate broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. **Play information** is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

See Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and **tracks the success of each song** in over 1,900 stations in the United States and Canada.

See Exhibit 2, parent-company RCS "About Us" webpage, http://www.rcsworks.com/en/company/about.aspx (emphasis

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	added). "In most major markets, we capture radio, broadcast TV, and local cable advertising occurrences 24 hours a daily and also track major daily newspapers. A patented algorithm detects the fingerprint of every spot and **creates a record of when and where it was aired** for accurate verification." *See* Exhibit 5, Media Monitors "Demo" video, http://mediamonitors.com/Demo.asp (emphasis added). **How are my report results organized?** Most **reports offer a variety of sorting options** so you can organize the data by **Account, Parent, Category, Instances, or even Estimated Expenditure**. *See* Exhibit 3, Media Monitors "FAQ" webpage, http://mediamonitors.com/faq.asp (emphasis added).

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Exhibit 1

MEDIA MONITORS
THE LEADER IN LOCAL MEDIA MONITORING

Sign in

HOME COMPANY SERVICES TRAINING CONTACT

Company Overview

MM Executives

- Philippe Generali, President
- Joseph McCallion, Executive VP
- Frank Cammarata, VP Sales
- Dwight Douglas, VP Marketing

MM at a glance

Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking℠, Broadcast TV and Local Cable TV and provides sales and marketing tools for media research firms and advertising agencies. Our patented broadcast monitoring technology reviews top-rated advertising media in major markets. It's our combination of expert human attention coupled with highly-sophisticated computer software that allows you to create same-day online reports anytime you want them, 24 hours a day. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa.

Using the patented technology of Media Monitors, Sales Executives can have details on a particular advertisement or an entire campaign at their fingertips in seconds. Every day, Media Monitors matches audio to fingerprints of millions of radio, TV and cable commercials and scans hundreds of newspapers for ad data. All this information is available on the easy-to-use web site of Media Monitors.

Media Monitors is a subsidiary of RCS. RCS is the world's leading provider of broadcast and Webcast software, serving over 9,000 radio stations, TV music channels, cable companies, satellite music networks and Internet stations worldwide. The Media Monitors broadcast content recognition process is protected by U.S. Patents 5,437,050 and 7,386,047 and additional patents pending.

Media Monitors
445 Hamilton Avenue, 7th floor
White Plains, NY 10601
1-800-67-MEDIA
Tel: (914) 428-5971
Fax: (914) 259-4541

Privacy Policy

© 2002-2012 Media Monitors - All Rights Reserved. The Media Monitors broadcast content recognition process is protected by U.S. Patents 5,437,050 and 7,386,047 with additional patents pending. Media Monitors, its logo and "The New Broadcast Monitoring" and "The Leader in Broadcast and Cable Monitoring" are registered marks of Media Monitors. All Rights Reserved. Other trademarks are the property of their respective owners.

Exhibit 2

About Us

RCS Executives

RCS World Headquarters

Philippe Generali, President/CEO
Chip Jellison, EVP, Technology & Development
Mark Hirschhorn, VP/CFO
Mike Powell, VP/International
Dwight Douglas, VP Marketing
Paul McKnight, VP/Client Services
Neal Perchuk, VP/Sales US

Regional Executives

Sven Andræ, VP/RCS Europe
Robin Prior, VP/RCS Africa

RCS Worldwide

Worldwide Offices

RCS World Headquarters

Neal Perchuk:
+1.914.428.4600

E-mail RCS World Headquarters

Company Overview

RCS is the world's leading provider of broadcast software, used by more than 9,000 radio and TV stations, cable music channels, satellite radio networks and Internet music sites worldwide. RCS has been the leader in software innovations since 1979.

From GSelector4, the world's most powerful multi-station scheduling system, to Zetta the award-winning digital radio automation system, to our integrated traffic software Aquira, RCS has a complete suite of software products for today's media outlet. RCS software solutions more advanced, extremely reliable, comfortably intuitive and expediently flexible and backed up by a world-class support team. RCS provides 24/7 support and assistance to all users in more than 100 countries.

RCS developed real-time audio recognition technology, which drives Media Monitors and Mediabase, our divisions that monitor commercial and musical content on radio, broadcast TV, and cable. Media Monitors provides competitive intelligence information for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. While Mediabase produces airplay charts for radio, satellite and music television channels and tracks the success of each song in over 1,900 stations in the United States and Canada.

Our global team of employees has a vast knowledge of every product and service produced at RCS. We believe in our customer's success. We have the best problem solving and solution minds in the broadcast software industry. When you need software, you'll want RCS.

For more information contact:
Dwight Douglas, +1.914.428.4600

E-mail RCS Newsroom

History Of The Company

Seeing the need for computerized song scheduling systems for radio stations, Andrew Economos left NBC to create Radio Computing Services, now known as RCS. Dr. Economos led the way by launching the first software to schedule music at radio stations throughout the world.

In 1979, RCS opened its doors with the first version of Selector® designed for music radio stations wanting to have more control over their song rotations, while maintaining balance and creating variety. Within the first year, Selector had its first station, the NBC owned FM station in San Francisco. Selector's rapid achievement pushed RCS to

Find:
- Radio Automation
- Music Scheduling
- New Media
- News Production
- Recording/Monitoring
- Contest/Promotion
- Traffic

develop more software for the broadcasting industry.

Building on Success
RCS saw the need for a sister program to help programmers and sales departments schedule promotional announcements and jingles, or "links" as coined by RCS, so Linker® was created. In 1983, the Compact Disc (CD) and the era of digital music were born. Within five years, RCS introduced another innovation, its first complete on-air digital studio automation system called Master Control™ which, along with Selector and Linker, completed the digital paperless studio for radio stations everywhere. By 1993, RCS counted over 2,000 stations worldwide using its software; three years later, Selector broke the 3,000 mark.

The best use the best™
RCS continues to improve all its software programs and delivers updated versions with new features several times a year. A hallmark of RCS from the beginning was the need to base refinements and improvements driven by its loyal customers and experienced 'power' users of the products. Innovative ideas like Internet Voice Tracking™ and RCS RadioShow™ keep RCS stations on the cutting edge. iSelector™, the award-winning patented interactive Internet is another example of RCS developing groundbreaking technologies for its customers and clients.

Moving Beyond Radio
RCS developed real-time audio recognition technology, which has been used in its launch of Media Monitors, a separate company that monitors commercial and musical content on 1,000 radio stations in the United States, Canada and other countries. RCS RadioShow technology, developed by RCS, is a platform to program and synchronize graphic content to broadcast audio and display the results on any device equipped with a screen.

RCS Today
RCS is the world's leading provider of broadcast software, used by more than 9,000 radio stations, TV music channels, cable companies, satellite radio networks and Internet stations worldwide. In January of 2007 RCS merged with Prophet Systems Innovations. Prophet Systems brings industry standard products like NexGen Digital to the RCS suite of solutions.

RCS Company

About Us
- RCS History

Contact Us
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- Find an office near you

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- Press Releases
- Story Sources
- Contact Information

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Exhibit 3

Frequenly Asked Questions

Media Monitors FAQ

What is the primary purpose for Media Monitors?

Media Monitors provides competitive intelligence for markets in the United States, Canada, United Kingdom, Australia, India and South Africa. Media Monitors is the leader in radio spot monitoring (MRC accredited), Newspaper Ad Tracking, Broadcast TV and Local Cable TV and provides sales and marketing tools for media research firms and advertising agencies.

What does it mean that Media Monitors radio service is accredited by MRC?

In the early 1960s, a US Congressional Committee held hearings on the purpose and accuracy of audience research and considered regulation related to the TV and Radio industries. These hearings resulted in the formation of an Industry-funded organization to review and accredit audience rating services called the MRC – Media Rating Council. The MRC counts 130 Board members in total, representing TV and Radio Broadcasting, Cable, Print, Internet and Advertising Agency organizations as well as Advertisers and Trade Associations. Major US Research organizations seek the MRC accreditation today and, if successful, the year-long stringent audit process brings remarkable credibility in the industry. Media Monitors has received MRC accreditation for its radio spot data.

How does Media Monitors know what was played or what ran?

Media Monitors' patented broadcast monitoring technology constantly records top-rated networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.

How long does Media Monitors keep the audio or video?

90 days.

What markets do you monitor?

Too many to list here. Check out our Market Map.

How are new advertisements identified?

Audio and video from top-rated broadcast stations is recorded using field sites in major markets. Our patented method of fingerprinting technology is then used to identify spots, and program output. These are forwarded to our Data Centers, where teams of specialists research and identify new advertisers. Play information is then added to the existing online database where users can easily search and access data, sort and examine it using a simple Web interface.

How soon is new advertising data available?

Often same day availability is available.

How is the actual creative viewed?

Report results will display an Instance number that links to the flight data. The flight data includes day and time of airing, the program title the spot aired in (if applicable) and a Media icon that allows playback of the creative.

How are my report results organized?

Most reports offer a variety of sorting options so you can organize the data by Account, Parent, Category, Instances, or even Estimated Expenditure.

What are some of the different aspects of Media Monitors that can help media outlet, or agency?

With Media Monitors Expenditure Data, Cost-Per-Point statistics and accurate verification, we can be your one-stop shop for quality information. Give your sales staff the tools to maximize their share of every dollar spent from every media campaign. Access an estimate of each campaigns expenditure so you can chart your sales compared of your competitors.

Can I download any of the reports or data?

All reports are available in the results screen and may be exported to Excel for further review or printing.

Is there a way to look at more than one station at a time?

Yes, Audience Reaction Face-Off compares two media against each other at the same time.

What is Mscore and how does it work?

Using minute-by-minute data from Portable People Meters deployed in US markets, Media Monitors has created a groundbreaking index: Mscore, the result of a partnership between Media Monitors, Mediabase and Arbitron. By showing how much the radio audience changes stations while a given song is playing, Mscore creates this performance rating for each song. The results are displayed in an easy to read graph, based on week to week airplay and listeners' reaction.

Using a patent pending algorithm, the multi-week moving trend of switching activity determines the Mscore for every song. The value can be positive or negative; representing less or more switching.

Does Media Monitors track programming?

Media Monitors records all content in select market broadcasts and identifies 30 and 60 second commercials as well as the log of spots as aired.

What do I see from Media Monitors in newspapers?

You can see each ad the way it ran in the paper, even in color if that is the way it was published.

Does Media Monitors provide any support or training?

Of course. Media Monitors offers FREE one-on-one or small group training sessions for new or existing client companies. Regularly scheduled WebEx sessions may be viewed here. Contact Chad Pfeiffer at 1-800-67-MEDIA, ext. 4863 or E-mail Chad at training@mediamonitors.com. Capacitación en español disponible a petición. Contacte a Ruth Arias al 1-800-67-MEDIA O vía correo electrónico rarias@mediamonitors.com.

How do I get a free trial?

Contact sales and you will be up and running on a free trial.

How do I log in if I forgot my password?

1. Click the Forgot Password link from the Login window to open this pane.
2. Enter your Username.
3. We will email your password to the address you have on file.

Back To Top

© 2002-2012 Media Monitors - All Rights Reserved. The Media Monitors broadcast content recognition process is protected by U.S. Patents 5,437,050 and 7,386,047 with additional patents pending. Media Monitors, its logo and "The New Broadcast Monitoring" and "The Leader in Broadcast and Cable Monitoring" are registered marks of Media Monitors. All Rights Reserved. Other trademarks are the property of their respective owners.

Exhibit 4

MEDIA MONITORS®
THE LEADER IN LOCAL MEDIA MONITORING™

Sign in

HOME COMPANY SERVICES TRAINING CONTACT

Local Internet

Methodology for Internet Data in Media Monitors

Media Monitors tracks local online display advertising by placing our data collection equipment physically in the markets we monitor. By tracking online advertising on web properties specifically targeted to that market Media Monitors is accurately providing a view of in-market advertising.

Media Monitors has done the research to identify the locally targeted web properties in each market we monitor. Within each market, the number of web properties monitored varies from 150 to 400. The list of web properties for each market is regularly reviewed and updated and is available on request.

The online advertising data collection & processing follows four steps, listed below:

Step 1: The software continually crawls each web property each day.

Step 2: A proprietary program finds display advertising from each website, downloads the creative files, and captures specific data such as the URL, time, and date.

Step 3: Automated processes are run on a nightly basis to match each creative observation to our existing database library and identify new advertisements.

Step 4: The previous day's newly observed data for known creative is available in Media Monitors the following day. Brand new creative is reviewed by our Discovery staff to identify the display advertising content and that data is typically available within 2-3 days.

Click here for FAQ.

What our Local Internet service provides:

- Immediate access to creative all in one system
- Powerful cross media search tools
- One- click data export to Microsoft Excel

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Exhibit 5

(PLACEHOLDER)

Exhibit 6

MEDIA MONITORS
THE LEADER IN LOCAL MEDIA MONITORING

Sign in

HOME COMPANY SERVICES TRAINING CONTACT

Local Cable

Media Monitors' patented broadcast monitoring technology constantly records top-rated Local Cable networks in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. Media Monitors Local Cable service provides occurrence information for the Local Cable networks we monitor.

Media Monitors offers Local Cable in more markets than any other monitoring service. In addition to monitoring the major Cable networks we also monitor Regional News and Regional Sports networks in most of our markets. Review any network's log of spots as aired, and watch the creative. Information can be tracked by Account, Parent, and Category. Make knowledgeable decisions with current information.

Click here for FAQ.

Click to Enlarge

Why you will profit from this powerful Local Cable tool:

- Identify prospects for new business
- Increase profitability from existing clients
- Improve accountability
- Track competitive advertising

What our Local Cable service provides:

- Same-day Local Cable data availability
- Immediate access to occurrence and creative all in one system
- Powerful online search tools for Local Cable in your market
- One-click data export to Microsoft Excel

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Exhibit 7

MEDIA MONITORS
THE LEADER IN LOCAL MEDIA MONITORING

Sign in

HOME COMPANY SERVICES TRAINING CONTACT

Local Radio

Media Monitors' patented radio monitoring technology listens to top-rated radio stations in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. Media Monitors Radio service provides occurrence and expenditure information with Audience Reaction® and AdRev.

You have access to detailed local radio occurrences in close to 40 different radio formats.

Hispanic Radio

Access 147 Hispanic Radio stations in more than 40 markets.

It is this combination of expert human attention coupled with highly-sophisticated computer hardware and software that allows you to create same-day online reports anytime you want them. Track advertising activity across radio stations in one or multiple markets. Information can be tracked by Account, Parent, and Category. Examine any radio station's log of spots as aired, and listen to the creative.

Radio En Español

Tenga acceso a 147 estaciones de Radio en Español en más de 40 mercados.

Click here for FAQ.

Click to Enlarge

Why you will profit from this powerful Radio tool:

- Great for prospecting; generate instant sales leads
- Advertising campaign verification
- Make powerful decisions with current information
- Create competitive intelligence reports

What our Radio service provides:

- Same-day Radio data availability
- Immediate access to occurrence and creative all in one system
- Powerful online search tools for Radio stations in your market
- One-click data export to Microsoft Excel
- Ability to generate reports whenever you want

Media Monitors Radio Spot Data is Accredited by the Media Rating Council

Accredited by Media Rating Council®

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Exhibit 8

MEDIA MONITORS
THE LEADER IN LOCAL MEDIA MONITORING

Sign in

HOME COMPANY SERVICES TRAINING CONTACT

Local TV

Media Monitors' patented broadcast monitoring technology constantly records top-rated television stations in major markets across the country. Our computers automatically track millions of recurring commercials 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day. Media Monitors Local TV service provides occurrence and expenditure information for the television stations we monitor.

Network TV

Media Monitors Network TV service provides occurrence information for the following broadcast networks:

ABC	My Network
CBS	NBC
CW	Telemundo
Fox	Univision

Track advertising activity across television stations in one or multiple markets. Information can be tracked by Account, Parent, and Category. Examine any log of spots as aired, and view as well as listen to the creative. Make knowledgeable decisions with current information.

Click here for FAQ.

Click to Enlarge

Why you will profit from this powerful TV tool:

- Identify prospects for new business
- Increase profitability from existing clients
- Improve accountability
- Track competitive advertising

What our TV service provides:

- Same-day TV data availability
- Immediate access to occurrence and creative all in one system
- Powerful online search tools for TV
- One-click data export to Microsoft Excel

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Exhibit 9

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Radio

Media Monitors tracks millions of radio commercials every day - in all the major markets. See the details of what spots ran on the radio in our easy to navigate log format.

Our patented radio monitoring technology listens to top-rated radio stations in major markets across the country - 24/7, 365 days a year. Our team of spot data specialists research and identify hundreds of new advertisers and commercials every day.

Media Monitors Radio Spot Data is accredited by the Media Ratings Council (MRC) demonstrating our demand for accuracy and transparency.

Media Monitors Radio service provides occurrence and expenditure information with Audience Reaction® and AdRev®, so you'll be able to

Click to watch the video

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access an estimate of campaigns expenditures based on radio airplay.

Chart your station's sales compared to your competitors and arm your sales staff the tools to maximize your share of every dollar spent from every media campaign.

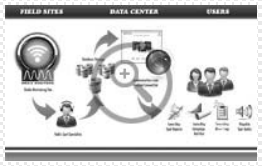
Access detailed local radio occurrences in close to 40 different radio formats. Media Monitors also covers more than 147 Hispanic Radio stations in 40 markets.

Read Our FAQs

SEE ALSO...

- Local Internet
- Local Cable
- Radio
- Broadcast TV
- Newspaper
- Qualitative Research

How It Works



Click to enlarge

How you can profit from this powerful Radio tool:

- Great for prospecting; generate instant sales leads
- Advertising campaign verification
- Make powerful decisions with current information
- Create competitive intelligence reports

Back to Top

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